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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/882,730	06/15/2001	Michael Weber	GR 98 P 5928 P	9171

7590 05/19/2004

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EXAMINER

KANG, INSUN

ART UNIT PAPER NUMBER

2124

DATE MAILED: 05/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/882,730	Applicant(s) WEBER ET AL.	
	Examiner Insun Kang	Art Unit 2124	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06/15/2001, 07/23/2001, 08/20/2001, 08/2.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>08/20/2001</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is responding to application papers dated 06/15/2001, 07/23/2001, 08/20/2001, 08/24/2001 and 10/20/2003.
2. Claims 1-6 are pending in the application.

Priority

3. Applicant has not provided a certified English translation of PCT/DE99/03830 for receiving the benefit of an earlier filing date under 35 U.S.C. 120. Acknowledgment is not made of applicant's claim for benefit of an earlier filing date under 35 U.S.C.

Specification

4. The disclosure is objected to because of the following informalities: the use of the word "subprogram" is confusing, since it actually refers to a "patch program."

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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5. Claim 5 recites the limitation "the parameter" in line 1 of claim 5. There is insufficient antecedent basis for this limitation in the claim, because it is unclear to which parameter it is referring.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Anderson et al. (US Patent 5,938,766) hereinafter referred to as "Anderson."

Per claim 1:

Anderson discloses:

- providing a read only memory having the program stored therein ("The system includes read-only memory(ROM) for storing an extendible control application," col 1 lines 60-63)
- the program having a multiplicity of program routines ("Control application includes a plurality of sub-routines," col 3 lines 40-46)

-each of the program routines can be allocated a subprogram stored in a first read/write memory ("Extensions are pieces of executable code that supplement or replace the routines contained in the original control application," col 2 lines 7-22; "RAM ... provides storage for symbol file... extensions," col 4 lines 6-10)

-each of the program routines having associated memory locations located in a second read/write memory ("RAM 315 provides an optional RAM disk 420 and working memory 425 for processing unit 305. RAM disk 420 provides storage for symbol file 421, extensions 422 and captured images 423," col 4 lines 6-21)

- if a respective program routine has an associated subprogram, the respective program routine calls the associated subprogram on a basis of a content of the associated memory locations ("if there is an extension to modify or replace routine X ..., the routine X function pointer would direct execution to that extension," col 5 lines 1-18)
as claimed.

Per claim 2:

The rejection of claim 1 is incorporated, and further, Anderson teaches:

- transferring at least one parameter from the respective program routine to the associated subprogram when calling the associated subprogram ("if a first ROM routine needs to call a second ROM routine, rather than redirecting program execution directly to the ROM address of the second routine, the first routine accesses the predetermined RAM address of the function pointer for the second routine," col 2 lines 7-22).

Per claim 3:

The rejection of claim 1 is incorporated, and further, Anderson teaches:

the associated memory locations associated with the respective program routine are associated exclusively with the respective program routine ("routine X 205 in ROM 110 has been replaced with updated routine X.1 210. Then, instead of Routine 2 (in ROM 110) calling Routine X at its ROM address..., Routine 2 (in RAM 115) calls Routine X.1 at its RAM address," col 1 lines 29-52) as claimed.

Per claim 4:

The rejection of claim 1 is incorporated, and further, Anderson teaches:

- the associated memory locations associated with the respective program routine are also associated with all other ones of the program routines ("if routine 2 ... needs to call routine X..., routine 2... would access the routine X function pointer within function pointers 427(x)," col 5 lines 1-18) as claimed.

Per claim 5:

The rejection of claim 2 is incorporated, and further, Anderson teaches:

the parameter notifies the associated subprogram that the respective program routine is calling, and an operation of the associated subprogram is influenced on a basis of the parameter ("if a first ROM routine needs to call a second ROM routine, rather than redirecting program execution directly to the ROM address of the second routine, the first routine accesses the predetermined RAM address of the function pointer for the

second routine... By modifying the RAM based pointers, the patch manager can cause the execution sequence to be diverted to the RAM address of an extension intended to replace a ROM routine," col 2 lines 7-22).

Per claim 6, it is another method version of claim 1, respectively, and is rejected for the same reasons set forth in connection with the rejection of claim 1 above.

8. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Wetmore et al. (US Patent 5,546,586) hereinafter referred to as "Wetmore."

Per claim 1:

Wetmore discloses:

- providing a read only memory having the program stored therein ("generation of programs that will exist on a static storage device such as a Read Only Memory (ROM) device," col 2 lines 50-65)
- the program having a multiplicity of program routines ("the ROM code is modularized to a greater extent so that respective modules may be more easily replaced," col 6 lines 10-17; see also col 3 lines 4-6)
- each of the program routines can be allocated a subprogram stored in a first read/write memory (" A ROM vector causes a jump to a location in RAM where the patch code may reside," col 2 lines 5-8)

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- each of the program routines having associated memory locations located in a second read/write memory ("modifying object files so that access to routines in the object file are referenced through a table located in RAM," col 2 lines 55-65)
- if a respective program routine has an associated subprogram, the respective program routine calls the associated subprogram on a basis of a content of the associated memory locations ("comparing entry points in the object files to entries in the symbol table...when a match is found, modifying the entry point of the object file to reference a corresponding entry in the vector table," abstract)

as claimed.

Per claim 2:

The rejection of claim 1 is incorporated, and further, Wetmore teaches:

transferring at least one parameter from the respective program routine to the associated subprogram when calling the associated subprogram ("the linkage editor to reference the vector code for all calls made to the original entry point," col 8 lines 2-11) as claimed.

Per claim 3:

The rejection of claim 1 is incorporated, and further, Wetmore teaches:

the associated memory locations associated with the respective program routine are associated exclusively with the respective program routine ("Vector Type is a macro that specifies which type of vector to apply to the particular routine," col 9 lines 25-60) as claimed.

Per claim 4:

The rejection of claim 1 is incorporated, and further, Wetmore teaches:

the associated memory locations associated with the respective program routine are also associated with all other ones of the program routines ("Each vector patch resource will have an identifier corresponding to the ROM versions on which it should be loaded.

So during the installation process the proper vector patch resource must be identified...routines which are different are checked via a ...CRC operation," col 10 lines 43-50)

as claimed.

Per claim 5:

The rejection of claim 2 is incorporated, and further, Wetmore teaches:

the parameter notifies the associated subprogram that the respective program routine is calling, and an operation of the associated subprogram is influenced on a basis of the parameter ("Each vector patch resource will have an identifier corresponding to the ROM versions on which it should be loaded. So during the installation process the proper vector patch resource must be identified...routines which are different are checked via a ...CRC operation," col 10 lines 43-50)

Per claim 6, it is another method version of claim 1, respectively, and is rejected for the same reasons set forth in connection with the rejection of claim 1 above.

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9. Claims 1-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Schurecht et al. (US Patent 6,260,157) hereinafter referred to as "Schurecht."

Per claim 1:

Schurecht discloses:

- providing a read only memory having the program stored therein ("a ROM having program instructions," abstract)
- the program having a multiplicity of program routines ("subroutine calls," col 6 lines 40-53) and each of the program routines can be allocated a subprogram stored in a first read/write memory ("a RAM memory capable of storing the patch program," col 3 lines 11-29)
- each of the program routines having associated memory locations located in a second read/write memory ("the patch vector table may be stored in the ...external RAM," col 4 lines 43-60; col 6 lines 40-53)
- if a respective program routine has an associated subprogram, the respective program routine calls the associated subprogram on a basis of a content of the associated memory locations ("redirection of the program based on the contents of the patch vector table," col 6 lines 28-53; col 3 lines 13-30) as claimed.

Per claim 2:

The rejection of claim 1 is incorporated, and further, Schurecht teaches:

- transferring at least one parameter from the respective program routine to the

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associated subprogram when calling the associated subprogram (col 8 lines 4-17 and 54-63) as claimed.

Per claim 3:

The rejection of claim 1 is incorporated, and further, Schurecht teaches:

- the associated memory locations associated with the respective program routine are associated exclusively with the respective program routine (col 3 lines 1-10) as claimed.

Per claim 4:

The rejection of claim 1 is incorporated, and further, Schurecht teaches:

- the associated memory locations associated with the respective program routine are also associated with all other ones of the program routines (col 3 lines 12-30; col 6 lines 54-67) as claimed.

Per claim 5:

The rejection of claim 2 is incorporated, and further, Schurecht teaches:

- the parameter notifies the associated subprogram that the respective program routine is calling, and an operation of the associated subprogram is influenced on a basis of the parameter (col 6 lines 54-67; col 9 lines 37-67) as claimed.

Per claim 6, it is another method version of claim 1, respectively, and is rejected for the same reasons set forth in connection with the rejection of claim 1 above.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Insun Kang whose telephone number is 703-305-6465. The examiner can normally be reached on M-F 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on 703-305-9662. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

IK
5/10/2004

A handwritten signature in black ink, appearing to read 'TODD INGBERG', with a long horizontal line extending to the right.

TODD INGBERG
PRIMARY EXAMINER